

What Is Claimed Is:

1. An apparatus for supplying cesium, comprising:

a gas flow controller controlling an amount of an externally introduced inert gas;

a pre-heater pre-heating the inert gas introduced through a first gas flow tube from the gas flow controller;

a cesium vaporizer emitting a cesium gas from a cesium containing source to a third gas flow tube by using the inert gas introduced through a second gas flow tube from the pre-heater; and

a pressure detector detecting a vapor pressure of the cesium vaporizer.

2. The apparatus according to claim 1, wherein the inert gas includes one of argon gas, nitrogen gas, and helium gas.

3. The apparatus according to claim 1, wherein the cesium containing source includes one of liquid cesium, solid cesium,

and a cesium compound formed of a mixture of the liquid cesium and the solid cesium.

4. The apparatus according to claim 1, wherein the cesium vaporizer emits the cesium gas through a plurality of bubbles formed by the inert gas.

5. The apparatus according to claim 1, further comprising:
a heater heating the pre-heater and the cesium vaporizer;

and

a plurality of heating wires heating the first, second, and third gas flow tubes.

6. The apparatus according to claim 1, wherein further comprising a cutoff valve on each of the second and third gas flow tubes.

7. The apparatus according to claim 1, wherein the pressure control valve controls the vapor pressure of the cesium vaporizer by opening and closing the third gas flow tube.

8. The apparatus according to claim 1, wherein the apparatus for supplying cesium is used in chemical vapor deposition, physical vapor deposition, vapor deposition using ion beam, display device tube or camera tube, electronic microscope, and photoelectron generator.

9. The apparatus according to claim 1, wherein the cesium vaporizer is heated at a temperature ranging from about 80 to 250°C when a process pressure is within a plasma forming range of an order of mTorr to Torr.

10. The apparatus according to claim 1, wherein the pre-heater and the cesium vaporizer are both introduced into an oven to be heated at a temperature ranging from about 80 to 250°C when a process pressure within a plasma forming range of an order of mTorr to Torr.

11. The apparatus according to claim 1, further comprising:

a gas introduction tube introducing the cesium gas passed through the pressure control valve.

12. The apparatus according to claim 11, wherein the gas introduction tube is heated at a temperature higher than that of the cesium vaporizer.

13. A method for supplying cesium, comprising:

controlling an amount of an externally introduced inert gas;

pre-heating the inert gas;

emitting a cesium gas by using the pre-heated inert gas and a bubbler; and

controlling the emitted amounts of cesium gas and inert gas to supply.

14. The method according to claim 13, wherein the controlled emitted amounts of cesium gas and inert gas are heated at a temperature higher than the emitted cesium gas by using the pre-heated inert gas and a bubbler.